

REMARKS

In the final Office Action¹ mailed October 4, 2006, the Examiner rejected claims 1-41 under 35 U.S.C. § 102(b) as being anticipated by Richardson et al. (U.S. Patent No. 6,633,856, hereafter "Richardson") as in the non-final Office Action mailed April 14, 2006.

By this Amendment, Applicants propose to cancel claim 3 without prejudice or disclaimer, amend claim 1 to include subject matter from canceled claim 3 and claims 4-5, and amend claims 4-8 and 40-41. Accordingly, claims 1-2 and 4-41 would remain pending.

Applicants respectfully traverse the rejection of claims 1-41 under 35 U.S.C. § 102(b) as being anticipated by Richardson.

Upon entry of this Amendment, claim 1 would recite a decoding apparatus for decoding LDPC codes, comprising, for example:

message storage means for simultaneously reading and writing message data corresponding to P edges, the message data being obtained as a result of said P check node computations or said P variable node computations;

wherein said message storage means [step] stores message data corresponding to the edges, the message data being read during the check node computation in such a manner that the sub-matrices of the check matrix are packed closer in a predetermined direction excluding the zero matrix. (Emphasis added).

In the portion of Richardson cited by the Examiner against claims 4 and 5, column 15, lines 52-65 and column 21, lines 39-65, the node processor processes three identical nodes simultaneously in parallel. In addition, the identity matrices are cyclic

¹ The Office Action may contain statements characterizing the related art, case law, and claims. Regardless of whether any such statements are specifically identified herein, Applicants decline to automatically subscribe to any statements in the Office Action.

permutable, and the edges are ordered either in accordance with the constraint nodes, or in accordance with the variable nodes. Richardson thus fails to teach “the sub-matrices of the check matrix are packed closer in a predetermined direction excluding the zero matrix,” as recited in amended claim 1. Independent claims 40 and 41, although of different scope than claim 1, also distinguish over Richardson.

Richardson thus fails to teach each and every element of claims 1, 40, and 41, and therefore does not anticipate claims 1, 40, and 41. Claims 1, 40, and 41 are allowable. Claims 2 and 4-39 depend from claim 1, and are also not anticipated by Richardson at least due to their dependence from the allowable claim 1.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-2 and 4-41 in condition for allowance. Applicants submit that the proposed claim amendments do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner. Therefore, this Amendment should allow for immediate action by the Examiner.

Alternatively, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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